

Remarks

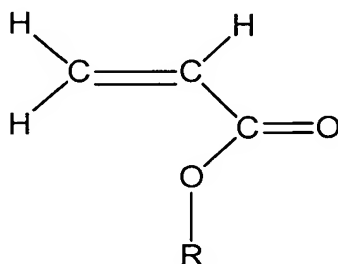
Claims 1-10 are presently pending in the instant application. Claims 11-29 have been withdrawn. Claims 30-38 have been added. Support for the new claims 30-38 can be found on page 3, lines 18-20 of the instant application.

The Examiner has objected to claim 5. The Group IIIA elements claimed are the equivalent of Group 13 using the new numbering system.

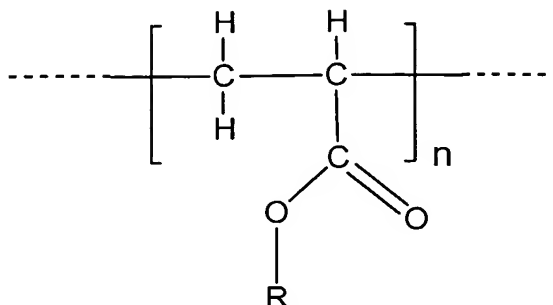
The Examiner is respectfully requested to reconsider and withdraw the rejection of claim 2 and 3 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The Examiner states "... R is the terminal group before chain propagation and if it is a polyacrylate it cannot be hydrogen because it would be a monomeric acid and not a polymeric ester group according to the formula given in claim 1."

Applicants respectfully disagree. The monomer is as follows:



The double bond polymerizes and several of these monomers bond together to form a polymer:



The “n” in the structure and in the instant claims denotes the number of building blocks/monomers in the resulting polymer. Applicants believe the formula given in the claims satisfies the 35 U.S.C. 112 requirements.

The Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-7 under 35 U.S.C. 102(b) as being anticipated by Aumuller et al. (U.S. 5,714,611).

Aumuller discloses a process to prepare N,N'-bridged compounds (*see* col. 1, lines 7-9). These compounds can be prepared by reacting tetramethylpiperidine compounds with a cyclic carbonate (*see* col. 2, lines 50-60). This reaction can be carried out with a catalyst. The catalyst can be a sulfonic acid catalyst (*see* col. 6 lines 1-13). A polymer is not one of the catalyst components listed.

The Aumuller '611 patent does not disclose, and Applicants have not found a composition comprising both an acid component and a polymer.

The Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-9 under 35 U.S.C. 102(b) as anticipated by or, in the alternative under 35 U.S.C. 103(a) as obvious over Aumuller (U.S. 5,914,360).

The Aumuller '360 reference discloses a process to prepare N,N'-bridged bistetramethylpiperidinyll compounds (*see* Aumuller '360, col. 1, lines 8-10). This process can be carried out with a catalyst. The catalysts listed include sulfonic acid catalysts (*see* Aumuller '360, col. 6, lines 19-30). However, the catalyst does not contain a polymer, as required in the instant claims. Aumuller '360 does not disclose and Applicants have not found a catalyst containing a polymer or a catalyst useful for stabilizing polymers.

The Examiner states "Aumuller, et al. disclose an acid catalyst composition . . . , heavy metal catalysts . . . and organic catalysts . . . used in an amount from 0.01 to 25 mole percent and are used to stabilize alkyl acrylate copolymers, alkyl methacrylate copolymers and other polymers (col. 6, l. 1 – col. 7, l. 54; col. 8, l. 56 – col. 9, l. 17)." (*see* Office action, page 5, 3rd paragraph).

However, the compound Ia in the reference, (the structure of which is found in col. 7, lines 15-25) is a compound which can stabilize copolymers (*see* col. 9 lines 7-16). Compound Ia is one of the products made by the Aumuller '360 process. It would not be obvious to use the information in Aumuller '360 to deduce a catalyst containing both an acid and a polymer.

The Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1 and 5 under 35 U.S.C. 102(b) as being anticipated by Hlatky (WO 01/81436 A1).

Hlatky discloses "polymerizing one or more olefins in the presence of a single-site catalyst, an optional activator, and an ionic liquid." (*see* Hlatky, page 3, 3rd paragraph). The single site catalyst is an organometallic complex with a Group 3 to 10 metal or a lanthanide or actinide metal (*see* Hlatky, page 4, 3rd paragraph). The complex can also include polymerization-stable anionic ligands (*see* Hlatky, page 4, 4th paragraph).

Hlatky does not disclose, and Applicants have not found, a composition comprising an acid component and a polymer.

Response to Response to Arguments

Aumuller '611

Aumuller '611 states "The novel compounds Ia as well as the compounds I and Ib are very suitable for stabilizing organic material to the effect of light, oxygen, and heat" (*see* Aumuller '611, col. 7, lines 48-50).

A catalyst, which can be a sulfuric acid catalyst, can be used to produce the compound I, which is the N,N'-bridged bistetramethylpiperidenyl compound with the formula as shown in col. 1, lines 10-16 of Aumuller.

Aumuller '611 further states that compound Ia is the compound which can stabilize polymers (*see* generally, Aumuller '611, col. 8, lines 56-67 to col. 9, lines 1-17). Compound Ia is a variation of compound I, and its formula is shown at col. 7 lines 1-8 of Aumuller '611. As is taught in general chemistry, a catalyst increases the rate of a reaction, but is not actually consumed in the reaction. Therefore, the sulfonic acid catalyst is not a part of the final reaction product Ia and is not present when Ia is used to stabilize polymers. Aumuller '611 does not disclose a

composition containing an acid component and a polymer and Applicants argue that the Aumuller '611 reference has been misinterpreted to read otherwise.

Aumuller '360

Since Aumuller '360 is a Division of Aumuller '611, Applicants submit that the arguments made above in regard to Aumuller '611 also apply to Aumuller '360.

Hlatky

Hlatky discloses a polymerization process performed in the presence of an ionic liquid (*see* page 6, line 3). This polymerization process is in the presence of a catalyst. The catalyst is an organometallic complex (*see* page 4, line 5). In Example 2 of Hlatky "polyethylene, the expected reaction product, collects on the surface of the ionic liquid and is easily isolated." (*see* page 10, lines 24-25). Applicants, therefore, argue that the two components are separate entities, and not a single composition is claimed in the instant claims.

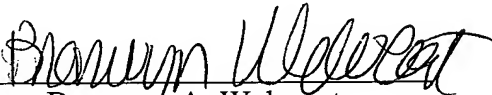
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In view of the remarks herein, reconsideration and allowance of claims

1-10 and 30-38 is respectfully requested.

Respectfully submitted,

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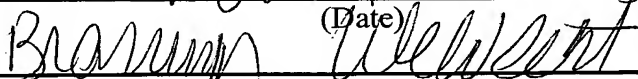
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(Date)


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